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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/846,920 | 04/30/2001 | Robert Brodersen | 05306P030 | 3664 |

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| EXAMINER | |
|---|---|
| VAUGHN, GREGORY J | |
| **ART UNIT** | **PAPER NUMBER** |
| 2178 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 01/11/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/846,920 | BRODERSEN ET AL. | |
| | Examiner | Art Unit | |
| | Gregory J. Vaughn | 2178 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-6,8,11,13 and 17-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 8, 11, 13 and 17-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Action Background*

1. This action is responsive to the applicant's Request for Continued Examination filed on 10/19/2006.

2. Applicant has canceled claims 7, 12, 27-29, 32 and 33, and amended claims 1-6, 8, 11, 13, 17-19 and 22-26. Claims 9, 10, 14-16, 30 and 31 were previously canceled.

3. Claims 1-6, 8, 11, 13 and 17-26 are pending in the case, claims 1, 6, 11, 17 and 22 are independent claims.

4. A request for continued examination filed under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after a final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action (dated 6/15/2006) has been withdrawn pursuant to 37 CFR 1.114.

5. Examiner's rejection of claims 1, 3, 6-8, 11-13, 17, 19, 22, 24, 27-29, 32 and 33 made under 35 USC 112 in the *Claim Rejections – 35 USC 112* section of the previous office action (dated 6/15/2006) is withdrawn in view of the amended or cancelled claims.

***Priority***

6. As mentioned in previous office actions, applicant's claim for domestic priority of US provisional application 60/283,713, filed 4/14/2001, under 35 U.S.C. 119(e) is acknowledged.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> *"A person shall be entitled to a patent unless –*
>
> (e) *The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language."*

8. Claims 1-4, 6, 8, 11, 13, 17-20 and 22-25 remain rejected under 35 U.S.C. 102(e) as being anticipated by Williams, US Patent 6,591,272, filed 2/22/2000, patented 7/8/2003.

9. **Regarding independent claim 1**, Williams discloses receiving input data including a hierarchy of instances of object components and performing a database modification process in response to the input data. Williams recites: *"Structured Query Language or "SQL" is used to define database elements,*

*consisting, but not limited to: tables, columns with tables, data types of columns, relationships between tables, constraints of numerous types, and to perform queries upon and to also perform create, update, delete operations upon the aforementioned elements*" (column 2, lines 48-53). SQL is an input language that specifies the hierarchy of the object components.

Williams discloses finding a database record matching a higher-level component instance within the hierarchy. Williams recites: "*The process of interrogation of relational database schema or catalogs to obtain information pertaining to the database tables and the interrelationships between database tables is well known*" (column 2, lines 59-62) and "*The use of software to map objects from relations and data in relational database management systems or vice versa to object oriented applications is also well known*" (column 3, lines 3-5).

Williams discloses updating the matching database record based on the higher-level component instance. Williams recites: "*In the prior art, one could typically update the underlying relational database(s) exclusively through the object system*" (column 3, lines 58-59) and "*The present invention also relates to a method of communication of changes to existing objects from client computers and their conversion into updates to one or more rows so as to modify the rows of the appropriate tables in the corresponding databases in transactional mode*" (column 5, lines 34-38).

Williams discloses finding a set of child records of the higher-level component instance and updating the set of child records based on a first set

of lower-level component instances within the hierarchy, each instance in the first set of lower-level component instance having a matching record in the set of child records. Williams recites: "*The use of software to map objects from relations and data in relational database management systems or vice versa to object oriented applications is also well known*" (column 3, lines 3-5) and "*The present invention also relates to a method of communication of changes to existing objects from client computers and their conversion into updates to one or more rows so as to modify the rows of the appropriate tables in the corresponding databases in transactional mode*" (column 5, lines 34-38).

Williams discloses inserting new database records based on a second set of lower-level component instances, the instances in the second set of lower-level component instances not having matching the records in the set of child records. Williams recites: "*For object insertions, an OSFORBStream is built in the client that contains the new attributes of the object to be inserted*" (column 14, lines 2-4) and "*## attributeName## tells OSFGenerate to take the name of the current attribute on this iteration of the repeat block, change the first character of the attribute name to lower case, then insert this attribute name in place of the ##attributeName## target*" (column 25, lines 57-61).

10. **Regarding dependent claim 2**, Williams discloses deleting records related to the object. Williams recites: "*The present invention also relates to a method of communication removal existing objects from client computers so as to delete the rows of the appropriate tables in the corresponding databases in transactional mode*" (column 5, lines 39-42).

11. **Regarding dependent claim 3**, Williams discloses the use of users keys related to the object instance. Williams recites: "*Further, validation of a sequence number, client IP address, client hostname and timestamp is performed on each received session security token before the username contained therein is used for an access check*" (column 19, lines 15-19).

12. **Regarding dependent claim 4**, Williams discloses the use of SQL. Williams recites: "*Pseudo-objects are then produced by dynamic generation and execution of pre-optimized SQL, enveloping values that result from execution of the generated prepared SQL statements*" (column 5, lines 2-5).

13. **Regarding independent claims 6, 11, 17 and 22**, the claims are directed toward a method, apparatus, method, machine-readable medium and a system (respectively) for the method of claim 1, and remain rejected using the same rationale.

14. **Regarding dependent claims 18 and 23**, the claims are directed toward a machine-readable medium and a system (respectively) for the method of claim 2, and remain rejected using the same rationale.

15. **Regarding dependent claims 8, 13, 19 and 24**, the claims are directed toward a method, apparatus, machine-readable medium and a system (respectively) for the method of claim 3, and remain rejected using the same rationale.

16. **Regarding dependent claims 20 and 25**, the claims are directed toward a machine-readable medium and a system (respectively) for the method of claim 4, and remain rejected using the same rationale.

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

18. Claims 5, 21 and 26 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Cseri et al. US Patent 6,708,164, filed 3/17/2000, patented 3/16/2004.

19. **Regarding dependent claim 5**, Williams discloses recursively finding, updating, inserting and deleting records of a relational database as described above. Williams fails to disclose cascaded deleting. Cseri teaches the use of cascaded deleting. Cseri recites: *"if a relational schema provides information about cascading delete constraints, then the cascading delete constraints is taken to indicate nesting. In a relational system, a cascading delete constraint permits specifying that children of a parent are automatically deleted, if the parent is deleted*" (column 7, lines 13-18).

Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made to use cascaded deleting as taught by Cseri with the data translation invention of Williams in order *"for information exchange among networked applications and the continuing and increasing use of relational database systems for managing businesses*" (Cseri, column 1, lines 14-16).

20. **Regarding dependent claims 21 and 26**, the claims are directed toward a machine-readable medium and a system (respectively) for the method of claim 5, and remain rejected using the same rationale.

***Response to Arguments***

21. Applicant's arguments filed 10/19/2006 have been fully considered but they are not persuasive.

22. **Regarding the independent claims 1, 6, 11, 17 and 22**, the applicant argues: "*Williams fail to provide disclosure of these claim limitation... the integration objects are not database objects* " (page 13, last paragraph, of the response filed 10/19/2006). The examiner respectfully disagrees. Applicant defines "*integration objects*" in paragraph 24 of the originally filed specification as: "*External Data 110 may be a data source such as another relational database, an XML document, a stored user file such as a spreadsheet or word processing document, or other data. Converter 120 represents a converter which may be utilized to transform the data of external data 110 into data represented as integration objects, such as integration objects 130.*" Furthermore, Williams discloses integration objects. Williams recites: "*Integration to Legacy Applications: PRO-OBJECTS and their support classes were designed to run along side of the existing legacy applications from day one and share the same databases in real time*" (column 29, lines 23-26).

23. Applicant further argues that Williams use of the terms "*interrogation*" and "*map*" fail to provide for the claimed features of "*matching*" and "*comparing*" (page 14, second paragraph to page 15 second paragraph, of the response filed 10/19/2006). Williams is directed toward modifying a database of

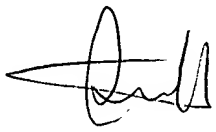
hierarchical information with information from another database of hierarchical information (sometimes referred to as updating or sometimes synchronizing). Although Williams uses different terminology, William's invention discloses the features of applicant's invention.

***Conclusion***

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Vaughn whose telephone number is (571) 272-4131. The examiner can normally be reached Monday to Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached at (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



STEPHEN HONG
SUPERVISORY PATENT EXAMINER

Gregory J. Vaughn
Patent Examiner
January 5, 2007